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conduct cases that came into the police courts was 57,220. The population of the city in that year was 1,041,886. In 1880 the population had increased to 1,203,239, and the number of drunk and disorderly cases had decreased nearly 13,000, or to 42,232. In 1885 the number of these cases, in proportion to the population, had decreased .054 per cent. In 1890 the percentage of decrease in the cases was .055, and in 1895 the population had increased by .75, while the number of cases had only increased .055 per cent. In the absence of any other explanation, the figures certainly indicate a decrease in public drunkenness.

AN ADVANCE OF STRIKES.

In the current issue of the North American Review Mr. M. E. J. Kelly puts forth the theory that "all strikes are beneficial to the workers," because every strike sets the people to thinking about the conditions of the workers. But for strikes, Mr. Kelly argues, many people would not think of the conditions or of their relations to civilization generally. There must be some violent disturbance to arouse the public mind.

If the views of Mr. Kelly are based upon sound principles, the more strikes the better. The real labor reformer would advocate a strike wherever he saw men at work, and would only have them seek employment that they might have an opportunity to create a disturbance by striking. If Mr. Kelly's policy were carried out no productive enterprise could go on. No man having capital would invest in any enterprise requiring the employment of labor, because he would know that the men he might employ, acting upon the theory of Mr. Kelly, would strike as soon as they were well at work, and thus ruin him. All enterprises employing labor would eventually come to a standstill, and hundreds of thousands of wage earners would be forced to endure all the sufferings which would result from constant lack of employment.

Such a general striking as Mr. Kelly's theory involves would lead sensible people to consider conditions, and the first of these conditions would be an ending of strikes as promoters of the well-being of labor. Fortunately, few men are of the heroic mold of Mr. Kelly. The mass will not strike unless it is made very clear to them that their strike will end in their advantage. There would be very few strikes if those leading in them should feel that those whom they would have to follow and cordially tell them that the chances for success were uncertain. There would be no strikes if those who would foment them should declare to their associates that a strike such as they advised would be quite sure to fail. The strike follows assurance of success, it was the assurance of success given by Debs and his associates to scores of audiences which brought about his conspiracy to force the railroad companies to accept his dictation. If he had said to those audiences that failure was certain he would not have had a score of followers, even if he had proved that indirectly his strike would promote the interests of labor by calling public attention to "the conditions of the workers."

It may be added that none of the conservative and trusted leaders of organized labor are in sympathy with Mr. Kelly. Even Mr. Debs has confessed that the strike should not be resorted to, under existing laws and conditions, as a remedy for the wrongs which labor may suffer.

FORESTS AND TREE CULTURE.

The statement that a bill will be introduced at the present session of the Legislature for the protection and preservation of the forests of Indiana, and perhaps to encourage forest culture, is suggestive of the recklessness and wastefulness of American methods. The fact has been illustrated in many ways, but in none more distinctly than the destruction of our forests. This applies with more or less force to all the States, but particularly to Indiana, nearly all of which was originally very heavily timbered. The forests were so dense that the "blazing" of the first roads was a heavy task and clearing the land was an immensely laborious work. Thousands upon thousands of giant walnut trees were felled and split into fence rails or burned which would now be worth a great sum of money.

Our hardwood trees, such as hickory, oak, ash, etc., of which the State had originally a vast store, have been as wastefully treated, and the present supply is not equal to the demand. If any person had predicted even fifty years ago that in half a century a bill would be introduced in the Legislature to encourage tree culture he would have been deemed insane. Yet so it is. Recklessness and waste have done their work, as in the case of the game birds, game birds, fish, etc., and now prudent people are considering methods of making new forests and restocking the streams with fish, the work of murdering and destroying which still goes on.

The utility of forests is much better understood and their encouragement and protection far more intelligently practiced in Europe than is ever likely to be the case in this country. Every country in Europe has forestry laws which are strictly enforced, and which, besides protecting existing forests, encourage the planting and cultivation of trees. A little has been done in that direction in this country, but about twenty years ago Congress passed a "timber culture act" which is still in force, under which a head of a family may become the owner of 100 acres of untimbered land on easy conditions, one of which is that he break and plant five acres with young trees each year until forty acres have been so planted. The law requires that not fewer than 2,700 trees shall be planted to the acre, of which not less than 25 to the acre must be living at the end of eight years to enable the owner to get a patent for the land. A considerable amount of land has been entered under this law, and some results are beginning to be experienced. Under an act of Congress of 1891 the President is authorized to make public forest reservations, and seven such reservations of 1,000,000 acres each have been established in Colorado, New Mexico, California, Arizona, Wyoming, Oregon and Washington. A bill to provide a systematic forest administration for these reservations has been considered by Congress, but not passed as yet. New York established a Forest Commission several years ago, with extensive power. Maine, New Hampshire and Pennsylvania also have Forest Commissions, and Ohio has a Forestry Bureau. There is a national organization called the American Forestry Association, which has branches in several States, but it has no legal authority and can do no more than cultivate public sentiment in favor of the protection of forests. One of the growing sentiment is the establishment of Arbor day in most of the States for the voluntary planting of trees by the people. Nebraska was the first State to establish Arbor day, in 1874, and since

then every State in the Union has established the day, twenty-one by legal enactment and the rest in some formal way. In six States Arbor day is a legal holiday, and in five it is made a holiday for schools.

Forestry experts and scientists estimate that the well being of a country is best promoted in respect of material resources, hygienic and climatic conditions, rainfall, etc., when 25 per cent. of the entire area is forest. The total forest area of the United States is estimated at 455,000,000 acres, or 26 per cent. of the total area. The estimated consumption of forest products for all purposes is 24,000,000,000 a year, and steadily increasing. At this rate of consumption the remainder of forest land in the United States cannot long meet the enormous demand on its resources. The time is not far distant when every State will recognize the wisdom if not the necessity of legislation for the protection of forests and the encouragement of tree culture.

AN INTERESTING CONTEST.

The senatorial elections held in France recently show that the Moderates who are called Republicans have made large gains from the Radicals. The Radicals are the advocates of ultra theories, and like the Socialists, are in favor of upsetting things generally. In the recent elections this element put forth the most strenuous efforts to increase their representation in the upper house. In this the Radicals failed, losing members both to the Moderates and the Conservatives and securing but thirteen seats in ninety-nine, while the Moderates elected sixty-nine. A few years ago France was the seat of socialism. The communists were a power that could be relied upon to ferment a disturbance whenever the conditions seemed favorable. It was predicted twenty-five years ago that the republican form of government then set up in France would fail because of the tendency of the French people towards communism. The reverse has taken place. As the years have passed the conservative element has constantly grown. Now and then a few Anarchists declare themselves in some crime, but in the affairs of the nation the once powerful commune has lost that force which made it, under one name or another, a terror in France.

While radicalism and socialism seem to have been losing ground among the more emotional people of France, it is evident that the same element is rapidly increasing in strength and power in Germany, where the people are naturally much more conservative and much less excitable. A bitter contest has been going on between the Emperor and the court, the army and the agrarian nobles and the masses the past few years, greatly increasing the number of Socialists. In fact, the Democratic Socialists and other factions are now so strong that they threaten to control the popular branch of the legislature. The revolt against the imperialism which Emperor William has so emphasized seems general and very determined. If the conflict should lead to open strife and resistance there can be no cause for surprise.

The tightening grasp of a ruler who holds to the one idea of the divine right of kings and that people exist chiefly to afford kings the right to rule, and the ultra liberalism which is the natural fruit of such a claim are certain to come in conflict. The revolution may be, and probably will be, peaceful, unless the recklessness of the Emperor should exasperate the masses. But, whatever may be the result, the growing hostility to the Emperor and his regime in Germany is a greater menace to the future of the German empire than France and the other powers.

The fact that under a popular government the element in favor of law and order seems to be steadily gaining ascendancy, while the spread of socialism has kept pace with the growing imperialism of William in Germany must force the conclusion that a popular government is the most stable.

RESTRAINT OF JUVENILE WAIFS.

The Journal has more than once expressed itself in favor of the entire separation of the Girls' Reformatory from the Woman's State Prison. This action is urged by the State Board of Charities in its recent bulletin of legislative recommendations, and is approved by the Governor in his message. If the Legislature should take any steps in this direction, however, it should proceed with especial caution, for the matter is not as simple as it seems upon its face. At first thought the subject would be to remove the reformatory from the prison grounds, and into quarters, with the view of relieving the girls of the reform division from evil influences and from the stigma that attaches to the name "prison"—the general public not discriminating between the departments when the respective inmates are at liberty again. To those who make closer study of the subject this separation seems desirable only in part, or with decided limitations. At present the penal department has forty-five inmates, with a capacity for sixty. The girls' department has comfortable accommodations for 100, and has over 200 inmates at this time. These 200 girls are of ages varying from eight years to twenty-one. A large proportion of the older ones are there as criminals, and but for their youth would have been sentenced by the courts to the other department. Among them are thieves, incendiaries and prostitutes of the most degraded type. Officers of the courts committing them will testify that their depravity is often extreme. Such girls are not likely to be contaminated even by direct association with the older women of the prison department. The woman who, in a fit of jealous fury, has murdered her rival, her lover, or her husband, does not necessarily encourage her companions to the commission of similar crimes, but the one who is of depraved mind and vicious habits is certain to have an immoral influence upon her companions. Insubordination at the institution usually occurs, according to the reports and police statistics, among the girls of the Reformatory proper. The fire which so greatly damaged the building a few years ago was the work of a number of the Reform School girls and not of the convicts. These are not the girls who need the protection of another roof. It is possible that they may be reformed, but it must be under restrictions that are prison-like in character. The separation, if any is made, should be of one class of these girls from another. An effort is being made to grade them and a merit system has been established, but it is obvious that it is unjust to the comparatively innocent girls, many of whom are mere children, to keep them in contact with the vicious and criminal inmates. A considerable number of these girls are sent to the Reformatory simply because they are waifs and the only other place of refuge is the County Poorhouse; and there are there under the charge of incorrigibility, which often means that

their parents or guardians wish to be rid of the responsibility of caring for them; some had shown a vicious tendency, but came in, and convicted with the plaintiff. The attention of the judge was called to the unheeded performance, but he refused to have the offending juror withdrawn from the case. Thereupon the Times's people withdrew from the court. The judge in his charge told the jury that they might find malice damages if they believed there was malice. Lest the jury should not believe that the article was inspired by malice, the judge asserted in effect that malice existed. The jury found for the plaintiff in the sum of \$45,000 and overruled a motion for a new trial. The case was taken to the Supreme Court, where the verdict was set aside on the ground that the damages were excessive and that a new trial should have been granted. The fact that it is a libel to print a man's record recalls the old English theory of libels, namely, the greater the truth the greater the libel. If a man is a candidate for any position of public or semi-public trust, it should be no libel to print the truth concerning him. Thanks to the last Legislature, the abuses of the old law regarding libel were repealed.

Reports to the State Department from diplomatic officers show that nearly all European countries have laws or regulations specially designed to exclude American dentists, the fact being generally recognized that European dentists cannot compete with them. In Austria-Hungary there is only one American dentist practicing, and he received a special permit from the Emperor after renouncing his American citizenship and becoming naturalized in Austria. In Rome foreign dentists are permitted to practice only among people of their own nationality. They are not permitted to do so in Rome as Romans do.

NOISES IN CITIES.

As a result of the efforts of several clergymen the newboys of the national capital have been forbidden to cry their papers on the streets on Sundays. A great aid is being made over the matter by the boys and their friends, and an attempt will be made to have the order rescinded. The incident is not mentioned here as text for a discourse on the woes of newboys. If their cries can be silenced on one day of the week by so much will peace and quiet be secured to the people of the city; but if on one day, why not every day? And if they are silenced only on Sunday, why should the injunction stop with them and not include the clergymen and other persons responsible for the ringing of church bells? Church bells are a relic of the period when clocks and watches did not exist, and when worshippers could be called together in no better way. In cities they are of absolutely no service, and their needless clangor jars upon sensitive nerves with more force than do the shrill cries of the occasional newboy. But bells and boys are but minor incidents in the noises of the city. The noise of the city is a fact of life, and it is being given to the mitigation of the deafening sounds. Even in London a crusade has been undertaken against them. Mink-dealers, it seems, cry their wares there as hucksters do here, and war is being made upon them. Street musicians are also an object of attention with a view either to suppressing them or to confining their operations to a limited number of houses in the day. None of these things, however, is an important part of the noise that wears upon the nerves and health of dwellers in cities. It is the thunder of traffic, the rattling of wagons over paved streets, the jar and rumble of trolley cars, the clang of gongs and bells, on fire and patrol wagons, on peddlers and scissors-grinders' carts and on bicycles—it is all these things that cause the wear and tear of nervous systems, in this day of push and hurry, and it is not clear, at this stage of mechanical development, how the evil can be remedied. The universal use of rubber tires will do something, and in time doctors means will be found for making street cars comparatively noiseless and substituting a more agreeable instrument for ear-splitting gongs. Meanwhile, until these twentieth century improvements arrive the public must endure the noises as best it can.

SCIENTIFIC.

Waste gases from blast furnaces at Horde, Germany, are to be used in gas engines which will drive dynamos for light and power.

By thermo-electric methods, Holman, Lawrence and Barr have found that copper melts at 1955 degrees Cent.; silver at 2180 degrees Cent.; and gold, 2750 degrees Cent.

The wave length of the Roentgen rays, as determined by Herr L. Fomm, is 0.000014 millimeter, which is about one-fifth of that of the shortest ultra-violet waves yet accurately measured.

The theodolites used at the Blue Hill Meteorological Observatory for measuring clouds were lately turned upon a flock of ducks that was flying over.

The birds were found to be at a height of 538 feet above the lower station, in the Neponset river, and they were flying at the rate of 4.5 miles an hour.

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The principal South Australian timber is eucalyptus, of which the colony has about 8,000,000 acres.

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The observations of each individual would include measurements—twenty-eight in all—with a few simple instruments, together with a description of the color of the skin, shape of head, face, nose, etc. The object sought is to determine what types among the inhabitants represent the various races, and what others indicate hybrid forms.

A magnified photograph record was exhibited by Professor McKendrick during a recent address to the Edinburgh Royal Society. The vibrations of a tuning fork, a second were spread over a length of twenty feet, and showed that any word is a collection of musical sounds running rapidly into each other, and that the musical notes of the vowels predominating. "Constantinople" shows 50 to 800 vibrations. No word can be read from the vibrations, and two tracings of the same word would rarely, if ever, be identical.

Whether memory is a purely mechanical process or not, it has a curious analogy in the "hysterics" that causes a magnet to retain an impression of a previous different magnetization, and in other phenomena of similar kind. Through this principle it is even possible, theoretically, at least, to make a doll that would remember that its hand had been burned. Suppose, says Prof. Reginald A. Fessenden, a minikin, a small man, were to hold a candle in his hand to be thrust into the flame, and, after heating, to withdraw it. Suppose a toy is simply an automaton, influenced by circumstances, and that the candle is a thousand times it would still thrust its hand into the flame. But suppose the spring is replaced by a showing elastic hysteria very markedly. The hand may now be thrust into the flame and withdrawn as before, but the spring has a different arrangement of atoms, so that if the hand is again brought to the candle it will be without retracting the act of thrusting into the flame. If allowed to rest a few moments, however, the original position is restored, and the minikin has temporarily lost its memory, but as the pressure is renewed it will once more thrust its hand into the flame.

The idea of electric signaling without wires is said to have been first suggested in a letter in the Mechanic's Magazine of Dec. 3, 1857. Steinheil, regarded in Germany as the inventor of the telegraph, directly afterward recognized the possibility of the plan, but only in recent years have experiments met with any degree of success, and even these have thus far offered little of practical value. The new system of Signor Marconi, a young Italian, however, gives promise of better results. At present he has received from Mr. Preece, the expert of the British telegraph department, a small amount of money to be fully tested without regard to expense. The system, it is stated, depends on electrostatic effect, and the waves of so high a rate as 250,000,000 per second. These vibrations seem to be projected in the same way as those of light, and can be refracted and reflected, and, indeed, made to exhibit all the phenomena of light. In this system no wire on each side is necessary, as in a system already tried. Vibrations are set up by an apparatus and received by a receiver, the secret being that the receiver must respond to the number of vibrations of the transmitter. Both sets of apparatus are carried in ordinary-looking boxes. Marconi's invention includes novel and beautiful devices not made public and not yet in operation, making practical use of the waves first suggested by Hertz, and which were set in motion in one box ring a bell in the other, experiments thus far having proven satisfactory. The system is called the "wireless" by the inventor, and the "Hertzian" by the public. It is said that he has issued bogus checks, but it was denied that he had fled the city in consequence, which was the only charge which the plain-

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